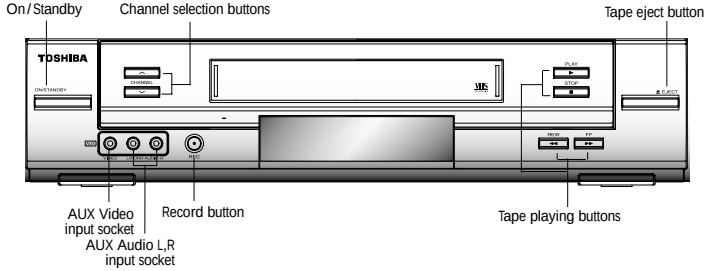
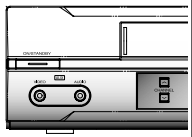
General Identification of the VTR Controls

Front Controls:

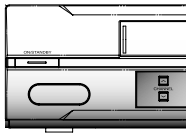
(V-752UK)



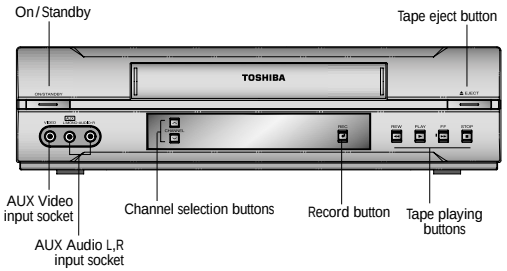
(V-252UK/ V-242UK)



(V-632UK/ V-232UK)



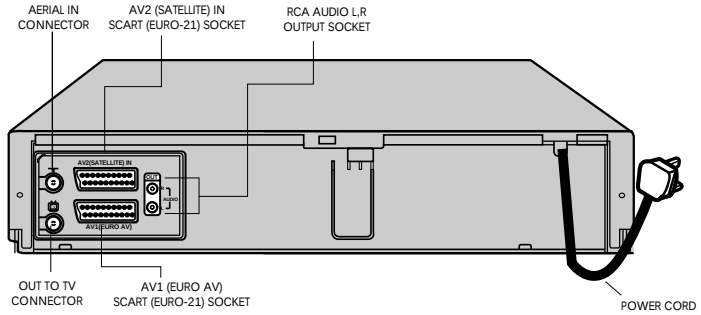
(V-652UK/V-642UK)



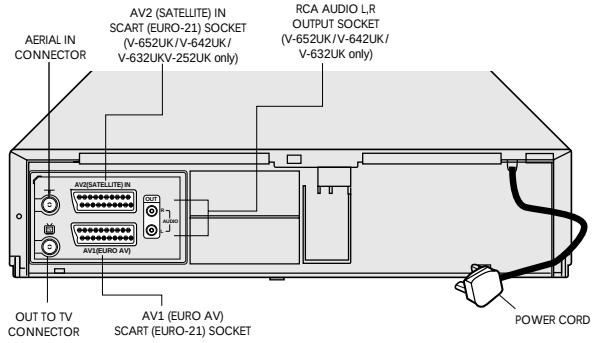
General Identification of the VTR Controls continued

Rear Connections:

(V-752UK)


AERIAL IN CONNECTOR
AV2 (SATELLITE) IN SCART (EURO-21) SOCKET
RCA AUDIO L,R OUTPUT SOCKET
OUT TO TV CONNECTOR
AV1 (EURO AV) SCART (EURO-21) SOCKET
POWER CORD

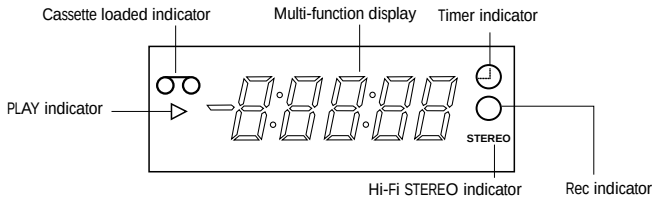
(V-652UK/V-642UK/V-632UK/V-252UK/ V-242UK/V-232UK)


AERIAL IN CONNECTOR
AV2 (SATELLITE) IN SCART (EURO-21) SOCKET (V-652UK/V-642UK/ V-632UKV-252UK only)
RCA AUDIO L,R OUTPUT SOCKET (V-652UK/V-642UK/ V-632UK only)
OUT TO TV CONNECTOR
AV1 (EURO AV) SCART (EURO-21) SOCKET
POWER CORD

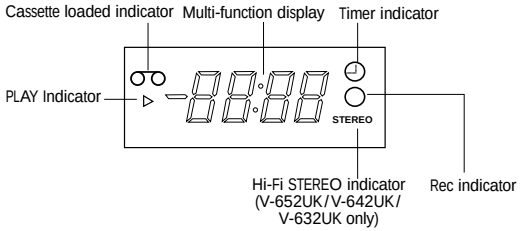
General Identification of the VTR Controls

Front Display Panel:

(V-752UK)



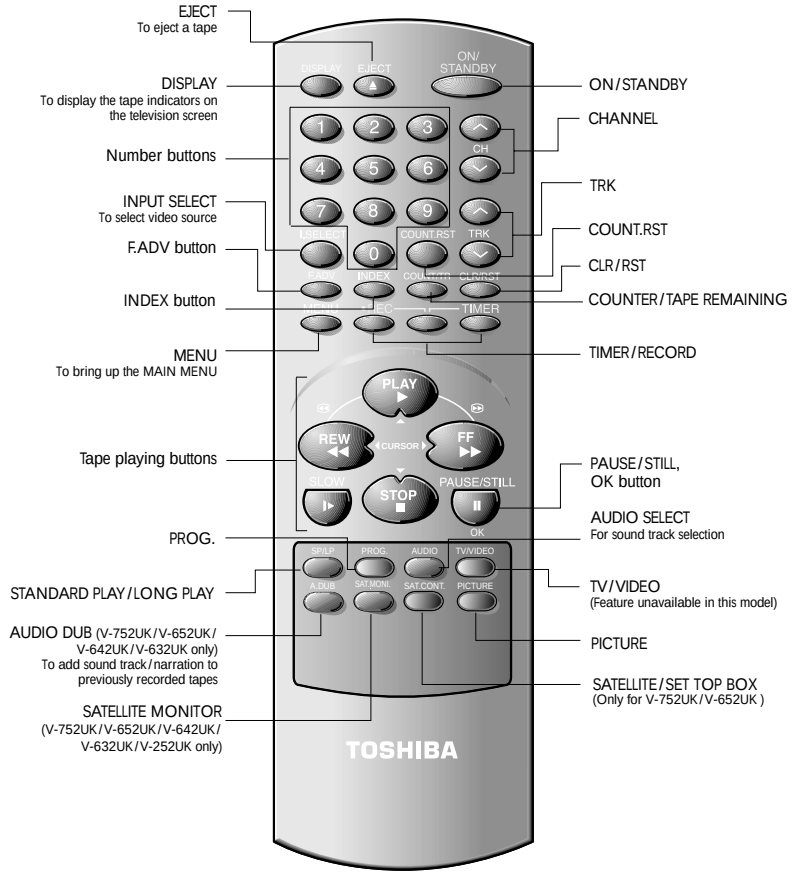
(V-652UK/V-642UK/V-632UK/ V-252UK/V-242UK/V-232UK)



Your Remote Control

The illustration below is to show a quick guide to the Remote Control. Detailed instructions occur throughout the book.

At a Glance:



Preparing your Remote Control

The Remote Control handset is needed to operate your new Toshiba video recorder. If used correctly, it should give years of trouble-free use. Please take good care of it, always observing the correct polarities when replacing the batteries.

Batteries:

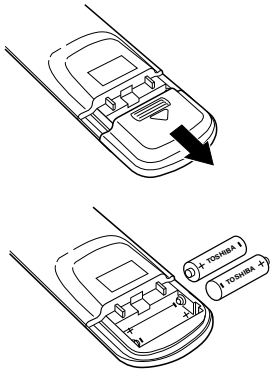
Carefully open the battery compartment lid on the rear of the Remote Control by gently pushing on the arrow and sliding in that direction.

Insert both batteries taking care to fit them the right way round (+ and –).

The 2 Toshiba batteries supplied are Cadmium- and Mercury-free (UM-4, AAA, IECR03, 1.5v).

Replace the cover of the battery compartement. By sliding in the opposite direction to the arrow.

CAUTION:
DO NOT throw your batteries into a fire. Dispose of your batteries in a designated disposal area.
DO NOT mix an old battery with a new one.
DO NOT mix battery types.



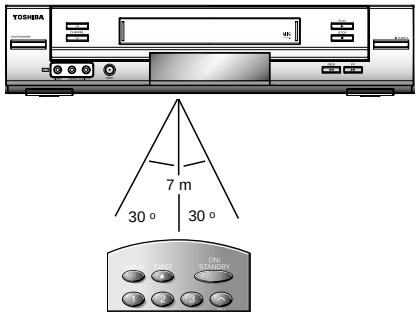
Caring for the Remote controller

- When using the Remote Control, press the buttons at intervals of about 1 second to ensure the correct mode of operation.
- Keep the Remote Control away from extremely hot or humid places and avoid sharp impacts.
- Do not expose the remote sensor of the VTR to a strong light source such as direct sunlight or illumination (especially high-frequency lighting) when using the remote control.
- Be careful not to spill water on the Remote Control or to place it on anything wet.

Effective Range for the Remote Control:

For optimum performance your Remote Control will operate within a distance of 7 metres and up to 30° from the central position.

If the Remote Control does not work, press the VTR button and make sure the batteries are in good working order.



Connecting your VTR

You must take into account various factors when connecting audio or video system :
- Types of connectors available on your systems
- Systems connected permanently to the VTR (satellite receiver for example) or temporarily (camcoder for example)

Deciding how to connect your VTR

Your VTR is equipped with the following connector.

Connectors	Location	Type	Direction	Recommended Use
AV1	Rear	SCART	In / Out	• Television • Other VTR
AV2 V-752UK / V-652UK / V-642UK / V-632UK V-252UK	Rear	SCART	In	• Satellite receiver • Other VTR
Audio output V-752UK / V-652UK / V-642UK / V-632UK	Rear	Audio RCA	Out	• Audio Hi-Fi system
OUT TO TV	Rear	75Ω coaxial	Out	• Television
IN FROM ANT.	Rear	75Ω coaxial	In	• Aerial • Cable television network
AUX V-752UK V-652UK / V-642UK	Front	Audio/Video RCA	In	• Audio Hi-Fi system • Camcorder • Hi-Fi Stereo VCR
AUX V-242UK / V-252UK	Front	Audio/Video RCA	In	• Audio system • Camcorder • AnotherVCR

Important:
Whenever you connect an audio or video system to your VTR, ensure that all element are switched off.
Refer to the documentation supplied with your equipment for detail connection instructions and associated safety precautions.

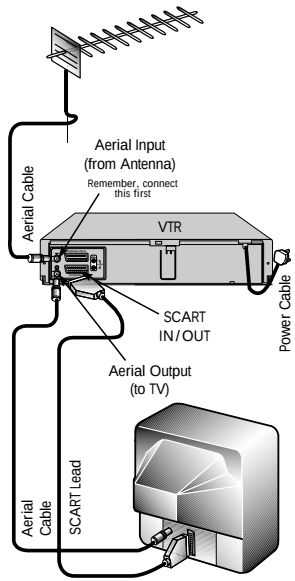
Connecting your VTR continued

To receive television programmes a signal must be received from one of the following sources:

- An outdoor aerial
- An indoor aerial
- A cable television network

Connecting your VTR to the TV using the coaxial cable and SCART cable

Make sure that both the television and the VTR are switched off before connecting the cables.



This owner's manual uses the illustrations of V-752UK.
V-652UK/V-642UK/V-632UK/V-252UK/V-242UK/V-232UK models may have some differences in appearance from the illustrations.

1 Remove the aerial or network input cable from the television.

2 Connect this cable to the 75Ω coaxial socket marked on the ⊐⊏ rear of your VTR.

3 Plug the coaxial cable supplied into the TV socket on your VTR.

4 Plug the other end of the coaxial cable into the connector previously used for the aerial on the television.

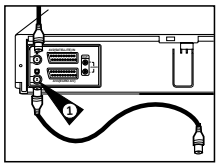
5 To obtain better quality pictures and sound on your television, you can also connect your VTR to the television via the SCART cable if your television is equiped with this type of connection. Connect one end of the SCART cable to the AV1 (EURO AV) socket on the rear of the VTR.

6 Plug the other end into the appropriate connector on the television.

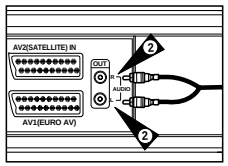
Connecting your VTR continued

Connecting the Audio Output Cable

You can connect your VTR to a Hi-Fi system.
Example: You wish to take advantage of the quality of your Hi-Fi stereo system when watching a programme or recording via your VTR.



(V-752UK/V-652UK/ V-642UK/V-632UK)



1 Connect the coaxial cable or SCART as indicated on page 10.

2 Plug the audio output cable into the audio connectors on the rear of your VTR.
Note : Respect the colour coding of the left and right channels.

3 Plug the other end of the audio cable into the appropriate input connectors on your Hi-Fi stereo system.

Important:

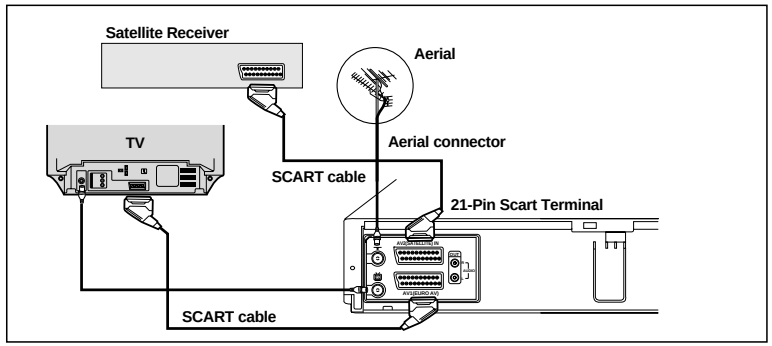
- Regardless of the type of connection chosen, you must always connect the coaxial cable supplied. Otherwise, no picture will be visible on the screen when the VTR is switched off.
- Make sure that both the television and the VTR are switched off before connecting the cables.

Satellite Receiver

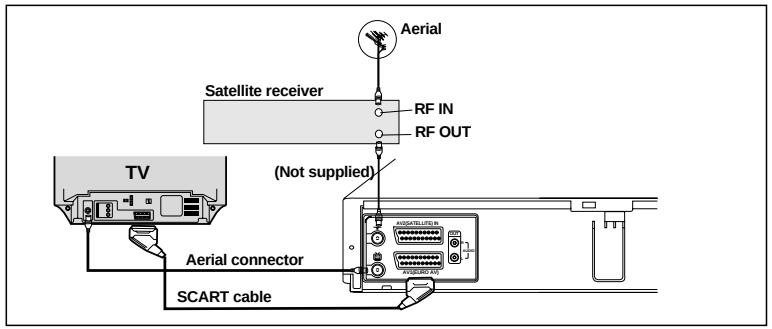
This VTR can be connected to your satellite receiver and you can enjoy watching or recording satellite programmes through the VTR.

Connecting a Satellite Receiver

By means of 21-pin Scart Cable:
If both your TV and Satellite receiver have a SCART, use a SCART cable (not supplied) to connect the VTR.



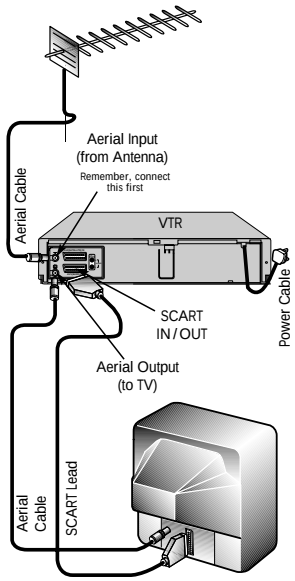
By means of RF Coaxial Cable:
After making this connection, you must preset the station received through the satellite tuner. And proceed with the satellite setting.



Plug & Auto Set Up

Your VTR will automatically set itself up when it is plugged into the mains for the first time. TV stations will be stored in memory. The process takes a few minutes. Your VTR will then be ready for use.

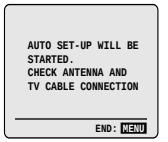
Plug & Auto Set Up

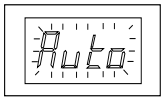


This owner's manual uses the illustrations of V-752UK.
V-652UK / V-642UK / V-632UK / V-252UK / V-242UK / V-232UK models may have some differences in appearance from the illustrations.

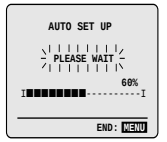
1 Connect the coaxial cable.

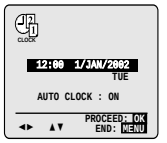
2 Plug the VTR into the mains. A message appears "AUTO SET-UP WILL BE STARTED. CHECK ANTENNA AND TV CABLE CONNECTION".





3 The process will finish after a few minutes. Then the date and time are set automatically from the broadcast signal, but this function will not operate if there is no teletext signal.



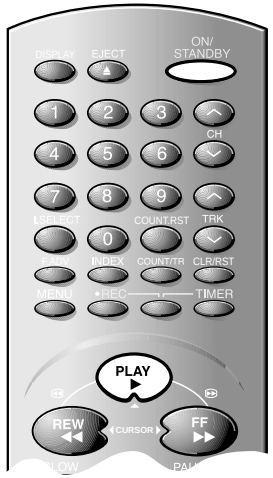


Tuning your Television for the VTR

You must tune your television for the VTR only if you are not using a Scart cable.

Tuning your television for the VTR

Note: To view pictures from your VTR when a Scart cable is used, the television must be set to the audio/video mode (AV).



1 Switch on the television.

2 Switch on the VTR by pressing ON/STANDBY on the front of the VTR or on the remote control.

3 Select a programme position on the television to be reserved for used with your VTR.

4 Insert the video cassette in the VTR. Check that the VTR starts reading the cassette; press PLAY (►) button.

5 Start a scan on your television or set the television to UHF channel 36.

6 Fine tune the television until the pictures and sound are obtained clearly.

7 If you cannot find the pictures and sound, or there is interference from nearby channels, it may be necessary to change the setting of the VTR output channel (see Solving Problems section of this manual).

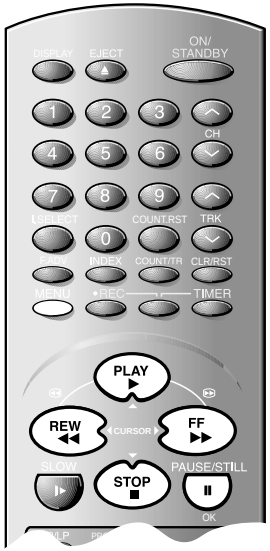
8 When the picture and sound are perfectly clear, store this channel at the desired programme position on the television.
Result : That programme is now reserved for use with your VTR.

Setting up your VTR

Your VTR contains a 24-hour clock and calendar used to:
- Automatically stop programme recording
- Preset your VTR to record a programme automatically

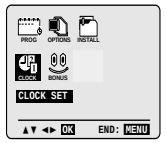
Setting the date and time

Note: You must set the date and time when:
You purchase the video cassette recorder
- The date and time are set automatically from the broadcast signal, but this function will not operate if there is no teletext signal.
- Do not forget to reset the time when you change clocks from winter to summer time and vice versa.



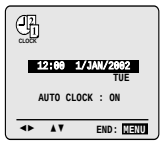
1 Press MENU on the remote control.
Result : The programming menu is displayed.

2 Press the corresponding ▲, ▼ or ◄, ► buttons to select the **CLOCK SET** option.



3 Press the OK button to select this option.
Result : The **CLOCK SET** menu is displayed.

4 Press ◄ or ► to select the hour, minutes, day, month and year.
Result : The option selected flashes.



5 Press the ▲ or ▼ button to increase or decrease the value.
Result : The day of the week is displayed automatically.
Note : You can hold the ▲ or ▼ buttons down to scroll more quickly through the values.

6 On completion, press MENU twice to exit the menu.

Displaying / Hiding On-Screen Information

Your VTR displays most information both on the VTR and the television. You can choose to display or hide this information on the television screen (except for the Index, Programming MENU, which cannot be hidden).

Displaying / Hiding On-Screen Information

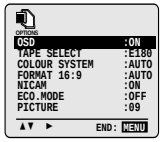
1 Press MENU on the remote control.
Result : The programming menu is displayed.

2 Press the corresponding ▲, ▼ or ◄, ► buttons to select the **USER SET** option.

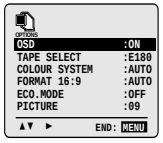
3 Press the OK button to select this option.
Result : The **USER SET** menu is displayed.

4 Press the corresponding ▲ or ▼ buttons, until the **OSD** option is selected.

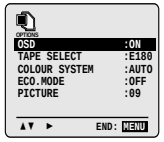
V-752UK / V-652UK / V-642UK / / V-632UK



V-252UK



V-242UK / V-232UK



5

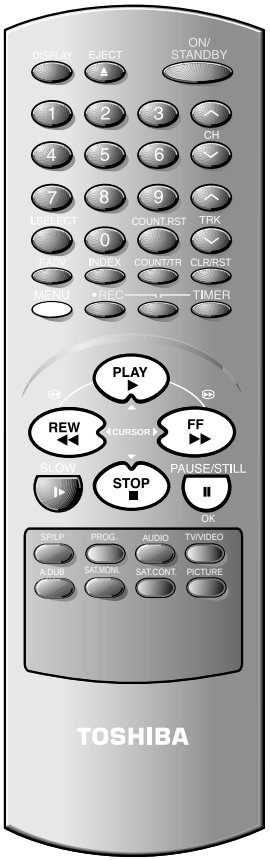
To...	Press ◄ or ►, until...
Display on-screen information	**ON** is displayed.
Hide on-screen information	**OFF** is displayed.

6 On completion, press MENU twice to exit the menu.

Installation

Your VTR output channel may need to be changed if the pictures suffer from interference or if your TV cannot find the pictures. Also, you can change the VTR output channel to adjust the frequency in which information is displayed on the screen.

Setting the VTR output channel



1 Press MENU on the remote control.
Result : The programming menu is displayed.

2 Press the corresponding ▲, ▼ or ◄, ► buttons to select the **INSTALLATION** option.

3 Press the OK button to select this option.
Result : The **INSTALLATION** menu is displayed.

4 Press the corresponding ▲ or ▼ buttons, until the **VCR OUTPUT CH** option is selected.

V-752UK / V-652UK

V-642UK / V-632UK / V-252UK / V-242UK / V-232UK

5 Select the required output channel (CH21~CH69) by pressing the ◄ or ► buttons.

6 On completion, press MENU twice to exit the menu.
Then tune your television again (see page 14)

Installation continued

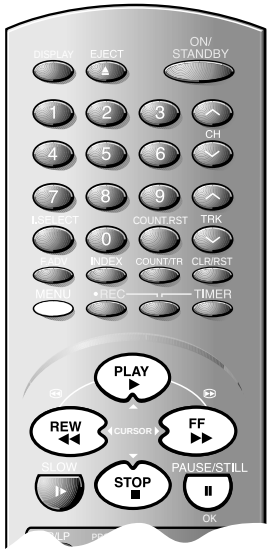
You do not need to preset the stations if you have already set them automatically (see Plug & Auto Set Up)

Presetting the stations automatically

Your VTR contains a built-in tuner used to receive television broadcasts.

You must preset the stations received through the tuner. This can be done:

- Plug & Auto Set up (see page 13)
- Automatically
- Manually (see page 19)



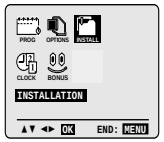
NOTE :

♦ The time and date are set automatically from the broadcast signal. If the signal is weak or ghosting occurs, the time and date may not be set automatically. In this case, they should be set manually (see page 15).

♦ Once the auto scanning procedure has finished, some stations may have been stored more than once; select the stations with the best reception and delete the ones no longer required (see page 27).

1 Press MENU on the remote control.
Result : The programming menu is displayed.

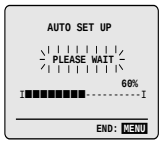
2 Press the corresponding ▲, ▼ or ◄, ► button to select the **INSTALLATION** option.



3 Press the OK button to select this option.
Result : The **INSTALLATION** menu is displayed.

4 Press the corresponding ▲ or ▼ button, until the **AUTO SET UP** option is selected. And then press the ► button to select this option.
Result : A message appears, indicating that any channels already preset on your VTR will be deleted.

5 Press OK to start the auto scanning.
Result : ♦ The **PLEASE WAIT** indication flashes on the television screen.



♦ The first frequency band is scanned and the first station found is displayed and stored.
♦ The VTR then searches for the second station and so on.
♦ When the automatic scanning procedure has finished, the VTR switches automatically to programme.

Note : The number of stations automatically stored by the VTR depends on the number of stations that it has found(reception conditions, etc)

6 If you wish to cancel the auto scanning before the end, press the MENU button three times to exit the menu.

Installation continued

You do not need to preset the stations manually if you have already set them automatically.

Presetting the stations manually

1 Press MENU on the remote control.
Result : The programming menu is displayed.

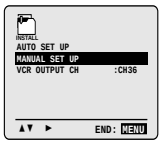
2 Press the corresponding ▲, ▼ or ◄, ► buttons to select the **INSTALLATION** option.

3 Press the OK button to select this option.
Result : The **INSTALLATION** menu is displayed.

4 Press the ▲ or ▼ buttons, until the **MANUAL SET UP** option is selected.

V-752UK / V-652UK

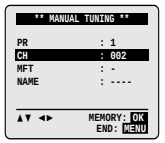
V-642UK / V-632UK / V-252UK / V-242UK / V-232UK



5 Press the ► buttons to select this option.
Result : The **TV STATION TABLE** menu is displayed.

6 Press the ▲ or ▼ button to select a programme number as required.

7 Press the ► button to preset the station.
Result : The **MANUAL TUNING** menu is displayed.



Installation continued

Presetting the stations manually

8 Press ◄ or ► button to start scanning.
Result : The frequency band is scanned and the first station found is displayed.
If you know the number of the channel you want, press the numeric buttons on the remote control for example, for channel E21, first press "0" and then press "2", "1" (see page 57).

9 Press the ▲ or ▼button to select **MFT**. This is useful when the channel scanned is not clear. Press ◄ or ► button to adjust for clear signal reception.

10 Press the ▲ or ▼ button until **NAME** is selected.
The station name is set automatically from the broadcast signal.

11 To change the programme's name, press the ► button.
Result : The first letter of the name flashes.

12

To...	Then...
Select a character in the name	♦ Press the ▲ or ▼ button until the required character is displayed. (letter, numbers or "-" character).
Move to the next or previous character	♦ Press the ◄ or ► button respectively,

13

If you...	Then...
Wish to store the stations displayed	♦ Press the corresponding ▲ or ▼ button, until the **MFT** is selected. ♦ Press the ◄ or ► buttons to adjust the picture, if necessary. ♦ Press OK to store the station.
Do not wish to store the station displayed	♦ Press the corresponding ▲ or ▼ button, until the **CH** is selected. ♦ Press the ◄ or ► button to go on scanning the frequency band and display the next station.

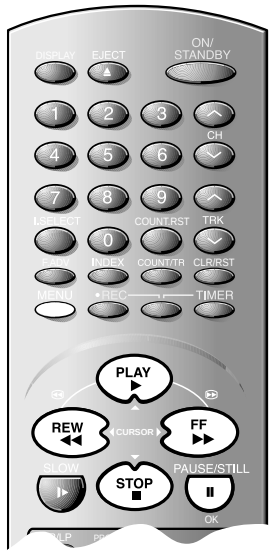
14 Repeat this procedure from step **6** onward, until all the required stations have been stored.

15 On completion, press the MENU button three times to exit the menu.

Installation continued

When the RF connection on the satellite receiver connection page has been performed, the following settings must be carried out in order to activate satellite control.
These settings are not necessary when the 21-pin SCART cable has been used for the connection. (see page 10)

Satellite Tuning (V-752UK/V-652UK only)



1 Press MENU on the remote control.
Result : The programming menu is displayed.

2 Press the corresponding ▲, ▼ or ◄, ► button to select the **INSTALLATION** option.

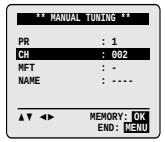
3 Press the OK button to select this option.

4 Press the ▲ or ▼ button to select **MANUAL SET UP** option.

5 Press the ► button to select this option.
Result : The **TV STATION TABLE** menu is displayed.

6 Press the ▲ or ▼ button to select a programme number as required.

7 Press the ► button to preset the station.
Result : The **MANUAL TUNING** menu is displayed.



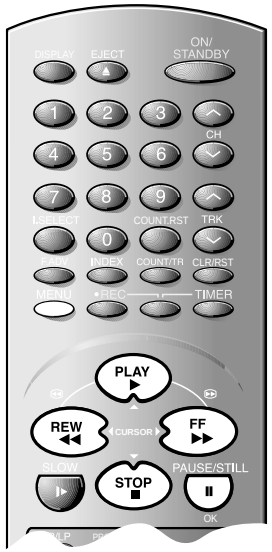
8 Press the ► button to start scanning until the RF OUT channel of the satellite receiver is displayed.

9 Press the OK button to store the station, and then press the MENU button three times to exit the menu.

Installation continued

Proceed with the setting instructions described below in order to activate the satellite receiver control functions.
These settings are supported only by the satellite receivers found on the list of compatible satellite receivers (see page 25).

Satellite Setting (V-752UK/V-652UK only)



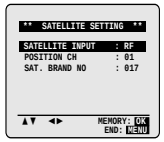
1 Press MENU on the remote control.
Result : The programming menu is displayed.

2 Press the corresponding ▲, ▼ or ◄, ► button to select the **INSTALLATION** option.
Then press the OK button to select this option.
Result : The **INSTALLATION** menu is displayed.

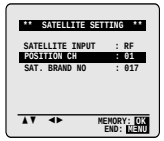
3 Press the ▲ or ▼ button to select the **SATELLITE SETTING** option and then press the ►button to select this option.

4 Select **SATELLITE INPUT** , press the ◄ or ► button to select input position where the satellite receiver is connected.

→RF→AV1→AV2→AUX



5 Select **POSITION CH** when **RF** has been selected. Press the ◄ or ► button to select position where the **RF OUT** of satellite receiver is memorized.



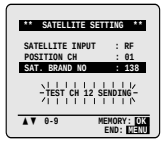
6 Press the corresponding ▲ or ▼ button to select **SAT. BRAND NO** .(see page 25)
Result : The first digit of receiver type number is flashed.

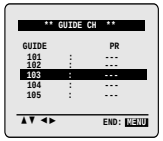
Installation continued

Satellite Setting (continue) (V-752UK/V-652UK only)

7 Press the numeric buttons to set receiver type number.
Result : When you enter the receiver type, the VTR sends a test signal to the satellite receiver to make sure that the receiver type has been entered correctly. The signal will set the satellite channel to 12. If channel 12 is displayed on your satellite receiver, it means the receiver type is set correctly. Several types may be allocated to one brand. Enter one after the other until the channel shows 12.
Note :
- Before pressing the numeric buttons to set receiver type, you must set the remote controller switch to VTR.
- First check the list of compatible satellite receivers (see page 25).
- It is not possible to control a receiver which is not on the list of compatible satellite receivers.

If no codes work, Press MENU button then select NO SATELLITE CONTROL on SATELLITE CH ORDER menu. Go to step no 10





8 You now need to tell the VTR the channel order on your satellite receiver. Most Satellite receivers are preset to either SKY ANALOGUE, SKY DIGITAL or ON DIGITAL order. If, however, you have changed the order then you will need to select PERSONAL PREFERENCE and change the VIDEO Plus+ system GUIDE numbers accordingly.
Select any of the SATELLITE CH ORDER and this will customise your VTR to your Satellite receiver.

9 If you select PERSONAL PREFERENCE you will need to select the channel order of the satellite receivers on GUIDE CH menu.
Press FF button to move the active cursor to PR position and select a PR number by using FF or REW button.
Press PLAY or STOP button for other channel orders selection and repeat step 9. Press MENU three times to exit.

10 If you selected NO SATELLITE CONTROL you will need to manually select the correct Satellite channel on the receiver when you want to record a satellite programme.
The set-up is now complete.

How to Preset the Type of Satellite Receiver (V-752UK only)

Note:
- The VTR may not be able to control some types or brands of satellite receiver, due to the choice of remote control coding being beyond our control.
- Check that the satellite receiver can be properly controlled.
- Try satellite broadcast timer recording once to check that timer recording works properly . (Refer to page 38).

The satellite receiver mode (Power On or Off) must be set before attempting to perform timer recording.
The procedure to set the mode can be divided into the following 3 types by satellite receiver. Check which one applies on the attached list before proceeding.

Preset Type	Controllable functions
A	No action needs to be taken. (The satellite receiver's power may even be OFF.)
B	Keep the satellite receiver's power OFF.
C	Keep the satellite receiver's power ON.

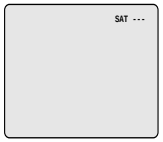
Please review the compatible satellite receiver list on page 25 before purchasing a new receiver. In order to assure satellite receiver control, Satellite Setting must be performed at the installation stage (see page 22).

Installation continued

A connected satellite receiver can be controlled by this VTR. It is possible to record many different satellite channel while you are absent, as the VTR can automatically change satellite channels as well. You can select satellite channels by using the remote controller.

How to Select the Satellite Channel (Satellite Control) (V-752UK/V-652UK only)

1 Press the SAT.CONT. button on the remote controller.
Result : "**SAT - - -**" is displayed on the screen and "SAt" is display on the front of the VTR.



2 Press the numeric buttons to be selected channel.
SAT 9 : ⓪ ⓪ ⑨
SAT 27 : ⓪ ② ⑦
You need to press the "0" numeric button to select one or two digit satellite channels.

Note:

- There will be a slight delay after pressing a button before channel change occurs. This is due to signal conversion.
- The range of satellite channels available for selection is 1 through 999.
- With some satellite receivers, it is not possible to select as many as 999 satellite channels.
- Some Satellite receivers may not be operated with this remote control. In these cases, operate the satellite receiver using its own remote control.

Installation continued

List of Compatible Satellite Receivers (V-752UK/V-652UK only)

BRAND NAME	MODEL NAME	RECEIVER TYPE	PRESET TYPE	BRAND NAME	MODEL NAME	RECEIVER TYPE	PRESET TYPE
ABAST	AB2020	134	A	NETWORK		9, 16, 17	C
ALBA		1, 2, 9, 16, 17, 65, 66	C	NOKIA	SAT820S, SAT8001S	143	A
ALDES		88	C	NOKIA	DVB9500S	144	A
ALLSAT		9, 16, 23	C	NOKIA	9800sDV3	154	C
AMSTRAD	SRD400, SRD500	5	A	NORDMENDE		17	C
AMSTRAD	SRD2000	124	A	OAK		112, 113, 114, 115	C
AMSTRAD		3,4, 17, 55, 56, 76, 77, 88, 90, 91, 124	C	PACE	MSS100, MSS220-G, PRIMA	138	A
BECO	BS9000	145	B	PACE	MSS331-G	139	A
BEST/DISEXPRESS		26	C	PACE	MSS500, MSS1000	147	A
BIG BROTHER		7, 8, 17	C	PACE	2200	6	C
BT		17, 122, 123	C	PACE		8, 9,16, 17, 23, 38	C
BUSH		2, 9, 16, 17, 65, 66	C	PANASONIC		17, 61	C
CABLE STAR		17, 101, 102, 103, 104	C	PHILIPS	STU401	150	A
CABLE TIME		17, 101, 102, 103, 104	C	PHILIPS	STU1320	136	A
CANALSATELLITE	CANAL+	133	A	PHILIPS	STV3510	73	A
CAMBRIDGE		17, 122, 123	C	PHILIPS		16, 17, 24, 46, 86, 136	C
CHANNEL MASTER		2, 3, 10, 17	C	REDIFFUSION		17, 25	C
CITYCOM	CCS170	141	B	RADIX	DELTA3000	127	B
D2MAC DECODER		17, 72	C	RADIX	ALPHA20	135	A
DECASTC+SAT		72	C	REVOX		17, 21	C
DRAKE		17, 45	C	SABA	SSR-440	142	B
ECHOSTAR		13, 14, 17, 92, 93, 94	C	SAKURA		17, 62, 63, 68	C
FERGUSON		9, 15, 16, 17, 23, 38, 39, 59, 108	C	SALORA		17, 26, 27, 50, 51, 52	C
FUBA		49, 69, 70, 78, 96	C	SAMSUNG		17, 36	C
GI		105, 106, 107, 108, 110	C	SCHWAIGER		23, 43	C
GOODMANS	ST700	148	A	SCIENTIFIC ATLANTA		116, 117, 118	C
GRUNDIG	GSR1	146	A	SENTRA		10, 17	C
GRUNDIG	GRD300	149	A	SIEMENS		17, 23	C
GRUNDIG	STR2200S	150	A	SKYMASTER		129	C
GRUNDIG	STR400AP, STR641	28	A	SONY		17, 30	C
GRUNDIG		17, 19, 71, 125, 152, 153	C	STRONG		31, 130	C
HIRSCH MANN		11, 19, 47, 48	C	TATUNG/NIKKO		17, 32, 54, 58, 80, 81	C
HUTH		74	C	TECHNISAT		40, 41, 92, 93	C
HUTH	500FS	137	B	TECHNISAT	ARD1	140	A
IMPULSE		105, 106, 107, 108, 110	C	TELEDIREKT		23	C
ITT/NOKIA		17, 26, 27, 50, 51, 52, 143, 144	C	TELEWIRE	3000DX	130	B
JERROLD		105, 106, 107, 108, 110	C	TEXSCAN		17, 119, 120	C
JVC	TU-AD1000	123	A	THOMSON	ASR11T	128	A
JVC		17, 122, 152, 153	C	THOMSON	ASR08T	132	A
KATHREIN		12, 16, 20, 24, 29, 31, 46, 73, 97	C	THOMSON		7, 17, 39	C
LEMON	VOLKSBOX	151	C	TOSHIBA		17, 33, 34	C
LENCO		17, 49	C	TPS	SAGEM	126	B
MACOM		111	C	TRISTAR		17, 31	C
MASPRO		17, 20, 64, 67	C	UNIDEN		17, 67	C
MATSUI	RD600	146	A	VIDEOTRON		17, 105, 106, 107, 108, 109, 110, 121	C
MATSUI	OP10	128	A	VIDEOWAY		105, 106, 107, 108, 109, 110, 121	C
MATSUI	RD800	150	A	VISIOPASS		16, 24, 46	C
MATSUI		12, 125, 152, 153	C	VISIOPASS	D2MAC	73	A
MIMTEC		21	C	VORTEC		36	C
MORGAN		43	C	WISI		17, 35, 37, 44, 93	C
NAGAI PALSAT	AB2020	95, 96	C	XSAT	CDTV200	131	A
NEC		17, 22, 57	C				

Digital Receiver (V-752UK/V-652UK only)

Brand	Model	Receiver Type NO.	Preset Type
MEDIA SAT		155	C
PANASONIC	TU-DSB20	156	C
	TU-DSB30		
AMSTRAD	DRX100		
GRUNDIG	DGS200		
PACE	BSKYB2200		
SONY	VTX750U		
PHILIPS	DTX6370	157	C
ITT/NOKIA	DVB9500C	158	C
	DVB9500S		
	DVB9600S		

Brand	Model	Receiver Type NO.	Preset Type
GALAXIS	FTA2	159	C
	602CI	160	C
	IQG.1	161	C
PHILIPS	TERMINAL TS4	162	C
SAGEM	ISD2210	163	C
GRUNDIG	DTR2000S	164	C
		165	C

Installation continued

(V-752UK/V-652UK only)

Common Satellite Receiver channel orders for VIDEO Plus+ system operation

Station name	GUIDE CHANNEL No.	SKY ANALOGUE	SKY DIGITAL	ON DIGITAL
BBC 1	1	X	101	1
BBC 2	2	X	102	2
ITV	3	X	103	3
CHANNEL 4	4	X	104	4
CAHNNEL 5	5	X	105	5
RTE (IRELAND)	6	X	X	X
NETWORK 2 (IRELAND)	7	X	X	X
TV NA GAELTACHTA	8	X	X	X
TV3	9	X	X	X
S4C	11	X	X	X
SKY ONE	101	1	106	26
SKY NEWS	102	2	501	X
SKY MOVIE MAX	103	3	308	24
SKY MOVIES PREMIER	104	4	301	25
SKY SPORT 1	105	6	401	21
NICKELODEON	106	7	604	X
EUROSPORT & BRITISH EUROSPORT	107	30	419	29
ITV2	108	X	X	6
MTV EUROPE	109	14	631	33
CHALLENGE TV	110	X	121	X
THE DISNEY CHANNEL	111	5	115	X
SKY BOX OFFICE 1	111	5	X	X
BBC WORLD SERVICE	112	X	X	X
UK ARENA	113	X	151	X
UK STYLE	114	X	148	38
UK HORIZONS	115	X	544	38
FILMFOUR	116	X	324	41
CARLTON CINEMA & CHAMPIONS ON 28	117	X	X	28
CARLTON WORLD	118	X	X	34
NATIONAL GEOGRAPHIC	119	18	538	X
CARLTON KIDS	120	X	X	X
BBC CHOICE	121	X	160	7
SCIENCE FICTION	122	26	130	X
CHRISTIAN CHANNEL	122	26	X	X
SOAP	122	26	X	X
UK GOLD	123	11	109	32
DISCOVERY	124	9	531	X
EBN	125	8	X	X
TROUBLE	125	8	607	X
CNN	126	31	513	X
RACING	127	20	416	X
WEATHER	127	20	X	X
SKY BOX OFFICE 2	127	20	X	X
PERFORMANCE	128	X	X	X
SKY CINEMA	129	27	315	X
LIVING	130	13	112	X
GRANADA PLUS	131	19	118	30
SKY SCOTTISH	132	21	X	X
UK GOLD 2	132	X	110	31
TV5 EUROPE	133	X	X	X
CHAMPIONS ON 99	134	X	X	X
TNT	135	29	X	X
QVC	136	12	650	X
ANIMAL PLANET	137	X	550	X
BBC KNOWLEDGE	138	X	553	X
CMT	138	24	X	X
UK PLAY	139	X	644	X
SKY SPORT 2	140	16	402	22
FOX KIDS	141	18	610	X
COMPUTER CHANNEL	142	22	X	X
GRDA BREEZE	142	X	136	31
GRANADA GOOD LIFE	142	22	X	X
SKY BOX OFFICE 4	142	22	X	X
LIVE TV	143	X	X	X
CNBC	144	X	510	X
VIDEO HITS ONE/ VH-1 (ENGLISH)	145	15	635	X
SELECT TV	146	X	X	X
ZEE TV	147	X	676	X
SKY SPORT 3	148	17	403	23
TV SHOP	148	17	X	X
CARTOON NETWORK	149	29	601	27
SKY MAX 2	150	X	309	X
SKY MAX 3	151	X	310	X
SKY MAX 4	152	X	311	X
SKY PREMIER 2	153	X	302	X
SKY PREMIER 3	154	X	303	X
SKY PREMIER 4	155	X	304	X
SKY CINEMA 2	156	X	316	X
S4C DIGITAL	157	X	184	X
SKY PREMIER WIDESCREEN	158	X	305	X
S2	159	X	X	X
TVYOU	160	X	X	X
SKY MAX 5	161	X	312	X
TCM (Turner Classic Movies)	162	X	327	X
24hr TNT channel	163	26	541	X
HISTORY	164	13	X	X
FANTASY CHANNEL	165	9	133	X
DISCOVERY HOME AND LEISURE	166	8	124	X
BRAVO	167	27	145	X
SKY TRAVEL	168	19	139	31
GRANADA MEN AND MOTORS	169	X	547	X
TV	170	X	974	X
ADULT CHANNEL	171	17	974	X
PLAYBOY TV	173	7	127	X
PARAMOUNT COMEDY CHANNEL	174	X	904	X
SKY SPORTS EXTRA	175	X	413	X
SKY SPORTS NEWS				

Note:
It is important that you check that your VIDEO Plus+ system Guide Channel order stored on the VTR is the same order as your Satellite Receiver otherwise VIDEO Plus+ system programming will not work correctly.

Clearing a Preset Station

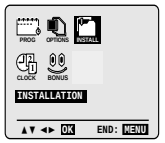
If you have stored a TV stations:
- That you do not require
- At the wrong programme position

You can cancel it

Clearing a preset station

1 Press MENU on the remote control.
Result : The programming menu is displayed.

2 Press the corresponding ▲, ▼ or ◄, ► buttons to select the **INSTALLATION** option.



3 Press the OK button to select this option.
Result : The **INSTALLATION** menu is displayed.

4 Press the ▲ or ▼ buttons to select **MANUAL SET UP** option.

V-752UK/V-652UK

V-642UK/V-632UK/V-252UK
V-242UK/V-232UK

5 Press the ► buttons to select this option.
Result : The **TV STATION TABLE** menu is displayed.

6 Press the corresponding ▲ or ▼ buttons, until the required preset TV station is selected. (PR)

7 Press the CLR/RST button.

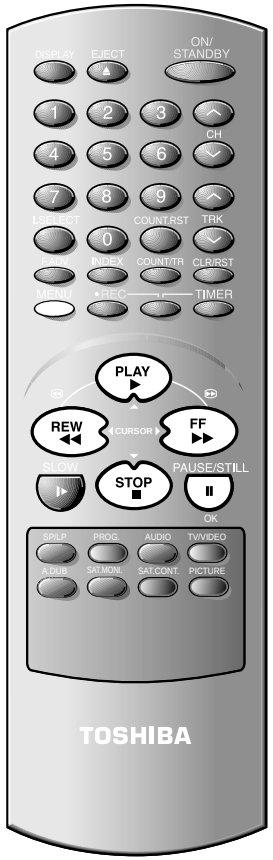
8 Repeat the same procedure from step **6** onward until all the required stations have been cleared.

9 On completion, press MENU three times to exit the menu.

Changing the Preset Station Table

You can rearrange the preset TV stations according to your own preferences programme number assigned to the station.

Changing the preset station table



1 Press MENU on the remote control.
Result : The programming menu is displayed.

2 Press the corresponding ▲, ▼ or ◄, ► buttons to select the **INSTALLATION** option.

3 Press the OK button to select this option.
Result : The **INSTALLATION** menu is displayed.

4 Press the ▲ or ▼ buttons to select **MANUAL SET UP** option. And then press the ► button to select this option.
Result : The **TV STATION TABLE** menu is displayed.

5 Press the corresponding ▲ or ▼ buttons, until the required preset TV programme is selected.
Result : The selected station is displayed at the same time on the television screen.

6 To change the programme number assigned to station press the OK button on the remote control. (For example, To move a TV station in programme 1 to programme 3)

7 Press the ▲ or ▼ button to select required position. And then press OK again to swap the position.

8 You can modify this station by repeating the same procedure from step **5** onwards.

9 On completion, press the MENU button three times to exit the menu.

Satellite Monitor Functions

(V-752UK / V-652UK / V-642UK / V-632UK / V-252UK only)

For satellite receiver with only ONE SCART socket:
If the satellite receiver has only one Scart output, Connect it to the BLUE input socket on the VTR. Use another Scart lead to connect the AV1 (EURO AV) socket on the VTR to the TV

Satellite monitor functions

If the Satellite receiver has two SCART outputs, one to the VTR and another to the TV, you do not need to use this function.

Note: To view satellite when video is in standby or (not ECO.MODE) recording a television station:

1 Press the SAT.MONI. button on the remote control once to select the AV2 (SATELLITE) IN scart. This will loop the satellite signal through the VTR up to the television.

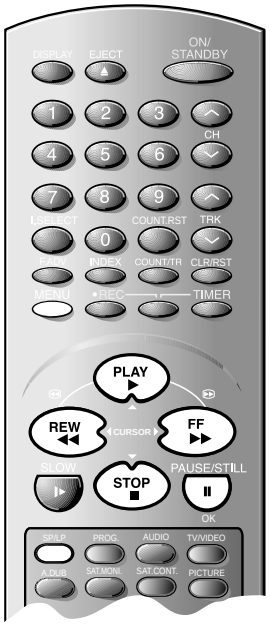
2 If it has not been automatically selected, select the SCART socket on the television. (refer to TV Owner's Manual)

3 To cancel press the SAT.MONI. button again.
Note: If you press MENU on the remote control the Satellite Monitor function will be canceled.

Recording Television Broadcast

If you wish to use the tape counter to display the time remaining on a cassette, you must indicate the type of cassette inserted.

Selecting the cassette type



Type	Recording Time (in SP)
E-180	180 mins. or 3 hours
E-240	240 mins. or 4 hours
E-260	260 mins. or
	4 hours and 20 mins.
E-300	300 mins. or 5 hours

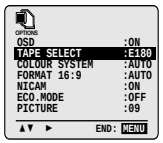
1 Press MENU on the remote control.
Result : The programming menu is displayed.

2 Press the corresponding ▲, ▼ or ◄, ► buttons to select the **USER SET** option.

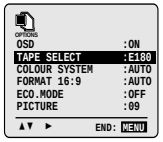
3 Press the OK button to select this option.
Result : The **USER SET** menu is displayed.

4 Press the corresponding ▲ or ▼ buttons, until the **TAPE SELECT** option is selected.

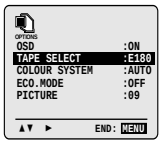
V-752UK/V-652UK
V-642UK/V-632UK



V-252UK



V-242UK/V-232UK



5 Press the ◄ or ► buttons as many times as required, until the correct cassette length is displayed.

E180 → E240 → E260 → E300 → E180

6 Press MENU twice to exit menu

Selecting the record speed

You can record a cassette at two different speed:
- SP (Standard Play)
- LP (Long Play)

In long Play modes:
- Each cassette last twice as long
- The recording is of a slightly lower quality

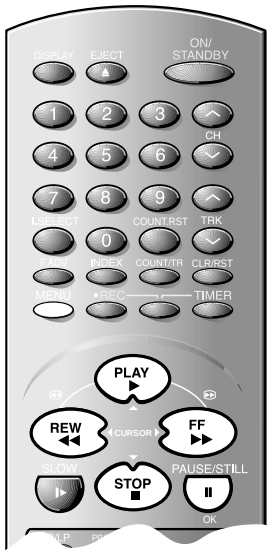
To record a cassette...	Press the SP/LP button on the remote control, until...
In standard play mode	**SP** is displayed.
In long Play	**LP** is displayed.

Recording Television Broadcast

continued

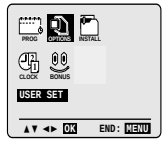
NICAM (V-752UK/V-652UK/V-642UK/V-632UK only)

NICAM programme are divided into 3 types. NICAM Stereo, NICAM Mono and Bilingual (transmission in another language). NICAM programmes are always accompanied by a standard mono sound broadcast and you can select the desired sound.
(Please refer to page 48).



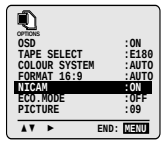
1 Press MENU on the remote control.
Result : The programming menu is displayed.

2 Press the corresponding ▲, ▼ or ◄, ► buttons to select the **USER SET** option.



3 Press the OK button to select this option.
Result : The **USER SET** menu is displayed.

4 Press the corresponding ▲ or ▼ buttons, until the **NICAM** option is selected.



5

To...	Press ◄ or ►, until...
Mono	**OFF** is displayed. OFF: Only set at this position to record the standard mono sound during a NICAM broadcast if the stereo sound is distorted due to inferior reception conditions.
NICAM mode	**ON** is displayed. ON: Normally set at this position.

6 On completion, press MENU twice to exit the menu.

Protecting a Recorded Cassette

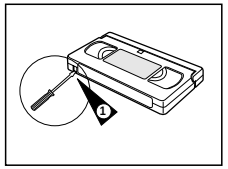
Video cassettes have a safety tab to prevent accidental erasure. When this tab has been removed, you cannot record on the tape.

Protecting a Recorded Cassette

Note:
- If the cassette is ejected when you start recording, check that the safety tab is intact or the opening is covered with adhesive tape.
- If you reach the end of the tape while recording, the cassette rewinds automatically.

1 If you wish to protect a cassette, break off the tab using a small screwdriver.

2 To re-record over a protected cassette (safety tab broken), cover the hole with adhesive tape.



Recording a Programme Immediately

Before recording a programme, you must have preset the corresponding station (unless you are recording via an external video source). If you have not done so, refer to pages 18 and 19.

1 Switch on the television.

2 To monitor the programme being recorded, select the television channel reserved for use with your VTR (or the AV input if used).

3 Insert the cassette on which the programme is to be recorded, with the window visible and the safety tab intact or the opening covered with adhesive tape.
Result : The VTR is switched on automatically

4 Select:
- The station to be recorded using the CH (▲ or ▼) buttons
  or
- The AV1, AV2 or AUX source using the I.SELECT buttons for a satellite tuner or external video source

Result : The station number is displayed and the programme can be seen on the television.

5 Select the recording speed (SP/LP) by pressing the SP/LP button as many times as required (see page 30).

6 Press two REC buttons on the remote control or REC button on the front of the VTR.

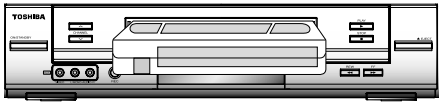
Result : The record indicator appears on the television and VTR display. An index is recorded on the tape (see page 52).

7 To stop recording, press STOP (■) once.

Recording a Programme with Automatic Stop

Recording a Programme with Automatic Stop

This function enables you to record up to nine hours of programmes. (LP)
Your VTR stops automatically after the requested length of time.



Note:
If the end of the tape is reached while recording:
- The recording stops
- The VTR automatically turns off

1 Switch on the television.

2 To monitor the programme being recorded, select the television channel reserved for use with your VTR (or the AV input if used)

3 Insert the cassette on which the programme is to be recorded, with the window visible and the safety tab intact or the opening covered with adhesive tape.
Result : The VTR is switched on automatically.

4 Select:
- The station to be recorded using the CH (▲ or ▼) buttons
  or
- The AV1, AV2 or AUX source using the I.SELECT buttons for a satellite tuner or external video source.

Result : The station number is displayed and the programme can be seen on the television.

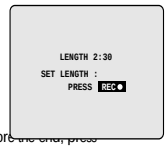
5 Select the recording speed (SP/LP) by pressing the SP/LP button as many times as required (see page 30).

6 Press two REC buttons on the remote control or REC button on the front of the VTR.

Result : The record indicator appears on the television screen and the VTR display. An index is recorded on the tape (see page 52).

7 Press two REC buttons several times to increase the recording time in
- 30-minute intervals up to four hours
- 1-hour intervals up to nine hours (LP)

Result : The length is displayed on the television displays. The selected programme is recorded for the length of time requested. At the end of that time, the VTR stops recording automatically.



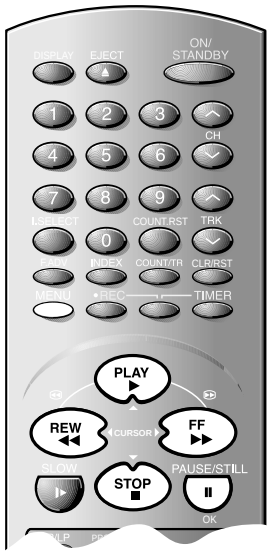
8 If you wish to cancel the recording before the end, press ON/STANDBY.

VIDEOPlus+ EXTEND

(V-752UK/V-652UK/V-252UK only)

To prevent delays or over-runs the VTR has a function called VIDEOPLUS EXTEND allowing you to extend the recording time by up to 60 minute.

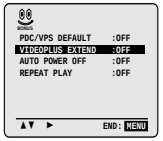
VIDEOPlus+ EXTEND



1 Press MENU on the remote control.

2 Press the corresponding ▲, ▼ or ◄, ► buttons to select the **EASY OPERATION** option.

3 Press the OK button to select this option .
Result : The **EASY OPERATION** menu is displayed.



4 Press the corresponding ▲ or ▼ buttons , until the **VIDEOPLUS EXTEND** option is selected

5 Press the ◄ or ► button to set the **VIDEOPLUS EXTEND** time by increments of 10 minutes.

6 To turn off, press ◄ or ► buttons repeatedly until **OFF** shows.

7 On completion, press MENU twice to exit the menu.

Only use if PDC is not available or set to OFF

VIDEOPlus+ System Recording

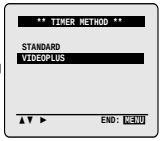
(V-752UK/V-652UK/V-252UK only)

Before presetting your VTR :
- Switch on both the television and your VTR
- Check that the date and time are correct
- Insert the cassette on which the programme is to be recorded (safety tab intact).
  Up to six programmes can be preset.

VIDEOPlus+ System Recording

Note: The numbers next to each TV programme listing are VIDEO Plus+ code numbers, which allow you to programme your videorecorder instantly with the remote control. Tap in the VIDEO Plus+ for the programme you wish to record.

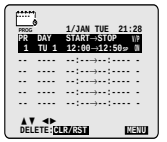
1 Press the PROG. button.
Result : The **TIMER METHOD** is displayed.
Note : STANDARD Timer Method is used for the standard Timer Programming such as TIMER PROGRAMMING Feature, refer to page 37 for this function.



2 Press the corresponding ▲ or ▼button to select the **VIDEOPLUS** option and press the ►button to select this option.
Result: A message is displayed to allow you to enter the VIDEO Plus+ code.
Note : If all six programmes have been set, the message **TIMER IS FULL** is displayed. Refer to page 39 if you wish to cancel a preset recording.

3 Press the numeric buttons to enter the code opposite the programme that you wish to record in your television magazine.
Note : If you wish to correct the VIDEO Plus+ code that you are entering.
- ♦ Press the ◄ button until the digit to be corrected is cleared.
- ♦ Enter the correct digit

4 Press the MENU or PROG. button
Note : When using the VIDEO Plus+ function for the first time with stored station, the programme number flashes. This one time, you must enter the station number manually by pressing the ▲ or ▼button. Refer to the following page if :
- ♦ The programme number or times flash
- ♦ You wish to modify the programme.



5 If the programme and times are correct, press the MENU button.

6 Press the two TIMER buttons to activate the timer. If you wish to turn the timer off any reason simply press the two TIMER buttons again.
Refer to page 39 if you wish to :
- ♦ Check that your VTR has been programmed correctly
- ♦ Cancel a preset recording

VIDEO Plus+ is a trademark of Gemstar Development Corporation. The VIDEO Plus+ system is manufactured under licence from Gemstar Development Corporation.

VIDEOPlus+ System Recording

(V-752UK / V-652UK / V-252UK only) continued

If you wish to correct the programme displayed or modify certain elements, such as the recording speed, you can do so before you press MENU a second time to confirm.

Modifying VIDEOPlus+ Programming

If you wish to...	Then...
Select an input source other than the tuner (AV1, AV2 or AUX)	♦ Press the ◄ or ► buttons, until the **PR** selection flashes. ♦ Press I.SELECT button one or more times to change the input source selection. Result : The programme number is replaced by : • A1, A2 or AU for a satellite tuner or external video input (used by another VTR for example) Note : The input source must be selected before changing any other value.
Record a programme every day (Monday to Sunday) at the same time	♦ Press the ◄ or ► buttons, until the **DAY** selection flashes. ♦ Press the ▲ or ▼ buttons, until the **DLY** (Daily) value is displayed.
Record a programme every week on the same day and at the same time	♦ Press the ◄ or ► buttons, until the **DAY** selection flashes. ♦ Press the ▲ or ▼ buttons, until the **W-** (Week) value is displayed. followed by the required day. Example : **W - SA** (Weekly Saturday)
Extend the recording time	♦ Press the ◄ or ► buttons, until the **STOP** selection flashes. ♦ Press the ▲ or ▼ buttons to increase or decrease the stop time.
Select the recording speed	♦ Press the ◄ or ► buttons, recording speed selection flashes. ♦ Press the ▲ or ▼ buttons until the correct indication is displayed : • AUTO (Auto Tape Speed Select) : see page 37 • SP (Standard Play) • LP (Long Play)
Select VPS / PDC	♦ Press the ◄ or ► buttons, until the **V / P** selection flashes. ♦ Press the ▲ or ▼ buttons until the ON or "-" indication is displayed. Note : Do not select VPS / PDC unless you are sure the programme you wish to record is broadcast with VPS / PDC ON (by selecting "ON" in the right - hand column on the screen), then you must set up the start time EXACTLY according to the published TV schedule. Otherwise the timer recording won't take place.

Using the TIMER Programming Feature

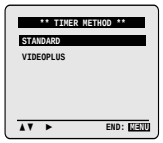
The TIMER Programming feature allows you to preset the VTR to record a programme up to one month before that programme is to be broadcast. Up to six programmes can be preset.

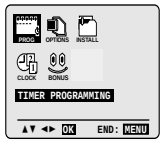
Using the TIMER Programming Feature

Note:
Auto Tape Speed Select
The VTR's Auto Tape Speed Select function compares the duration of the timer recording to the actual recording time remaining on the tape loaded. If there is insufficient tape to complete a timer recording in AUTO mode, the VTR automatically switches to LP mode to record the whole programme.
E.g. If there is a one hour Timer recording in AUTO mode to be started, and only 40 minutes tape remaining, the VTR will record in SP for 20 minutes and switch to complete the remaining 40 minutes in LP mode.

1 Insert the cassette. Press the PROG button.
Press the ▲ or ▼ button to select the STANDARD option and then press the ► button or,

Press Menu on the remote control.
Result : The programming menu is displayed.
Press the OK button to select TIMER PROGRAMMING option.
Result : The **TIMER PROGRAMMING** menu is displayed.





2 Press ► to select the input source.

3 Select the required station by pressing the ▲ or ▼ button or I.SELECT to select the AV1,AV2 or AUX input sources.

4 Press ► to select the recording day.

5 Select the required day by pressing the ▲ or ▼ button.

6 Press ► to select the recording start time.

7 Select the required hour value by pressing the ▲ or ▼ button.

8 Press ► to select the minutes.

9 Select the required minute value by pressing the ▲ or ▼ button.

10 Press ► to select the recording end time.

11 Select the required recording end time by pressing the ▲ or ▼ button, following the same procedure as when selecting the recording start time.

12 Press ► to select the recording speed (AUTO / SP / LP).

13 Press the ▲ or ▼ button to switch between the **AUTO**, **SP** (standard Play), **LP** (Long Play) recording speeds.

14 Press ► to select the VPS or PDC (V / P) recording mode.

15 Press the ▲ or ▼ button to toggle between the VPS or PDC mode (marked **ON**) and the non-VPS / PDC mode (marked **-**).

16 To set another timer programme, press ► button to go to next line and follow steps 2 to 15.

17 When you have finished, press the MENU button.

18 Press the two TIMER button to activate the timer.
Note : If you wish to turn the timer off any reason simply press the two TIMER button again.
Result : Before starting recording, the VTR compares the timer duration with the remaining time on the cassette.

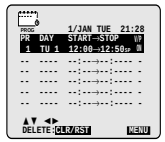
Setting a Satellite Channel Recording (V-752UK/V-652UK only)

When satellite input has been set, you can program a timer recording to a satellite channel by using the VIDEO PLUS+ and the TIMER programming function.

Setting a Satellite Channel Recording

Before presetting a satellite channel recording, check the satellite tuning and setting (see pages 21 and 22)

1 Insert the cassette and press the MENU button. And then press the OK button to select **TIMER PROGRAMMING** for satellite channel.



2 Press ► to select the satellite input source.

3 Select the satellite input by pressing the SAT.CONT. button or I.SELECT button.
Result : If the satellite input has been set correctly, the PR displayed "S---".

4 Press the numeric button to be selected channel.
SAT 9: ⓪ ⓪ ⑨
SAT 27: ⓪ ② ⑦
You need to press the "0" numeric button to select one or two digit satellite channel.

5 Refer to using the TIMER programming feature how to select a day, start & stop time, speed (see page 37).

Note:
- VPS/PDC programming is not possible in conjunction with satellite programmed recording.
- In the case of some satellite receivers, the power remains off for several seconds when timer recording commences.
- With some satellite receivers, the first several seconds will not be recorded when the timer recording function is used.
- With some satellite receivers, the power goes off if the recording is stopped while timer recording is still underway.

Checking a Preset Recording

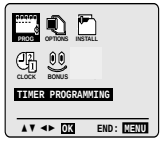
You can check your preset recordings:
- When you have finished presetting the VTR
- If you have forgotten which programmes will be recorded
- Before the VTR enters the timer standby mode

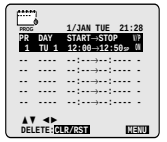
Checking a Preset Recording

You can cancel any programmes that are :
- Incorrect
- No longer required

1 Press MENU on the remote control.
Result : The programming menu is displayed.

2 Press the OK button to select this option .
Result : The **TIMER PROGRAMMING** menu is displayed.





3 Press the ▲ or ▼ buttons to select the required programme.

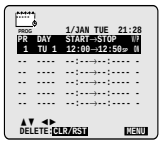
4 Press the ◄ or ► button to select and change any values as required. For more details, refer to the previous page.

5 On completion, press MENU.

Cancelling a Preset Recording

1 Press MENU on the remote control.
Result : The programming menu is displayed.

2 Press the OK button to select this option .
Result : The **TIMER PROGRAMMING** menu is displayed.



3 Select the programme to be cancelled by pressing the ▲ or ▼ button.

4 Press the CLR/RST button to cancel the selected programme.
Result : All the recording information is deleted and the broadcast will not be recorded.

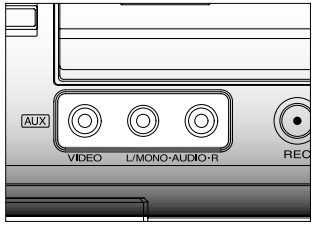
5 On completion, press MENU.

Advance Recording Feature

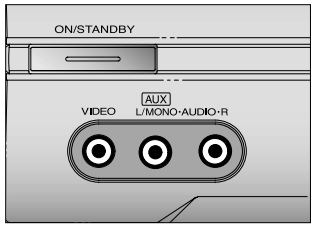
You can connect other audio/video equipment to your VTR using audio/video cables if the appropriate outputs are available on the equipment chosen.

Connecting an RCA Audio/Video Input Cable

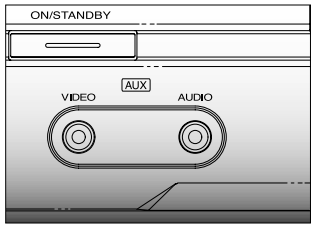
(V-752UK)



(V-652UK/V-642UK)



(V-252UK/V-242UK)



Examples : ◆ You wish to copy a video cassette with the help of a second VTR (see page 41)
◆ You wish to play back and/or copy pictures taken with camcorder (see page 41).

Note : ◆ Make sure that both the television and the VTR are switched off before connecting the cables.

1 Connect one end of the RCA audio/video cable into the VIDEO socket on the front of the VTR.

2 Plug the other end of audio/video cable into the appropriate output connector on the other system (VTR or camcorder).

3 Connect one end of the RCA audio cable into the AUDIO sockets on the front of the VTR.
Note : Take care to respect the colour coding of the left and right channel.

4 Plug the other end of the audio cable into the appropriate output connectors on the other system (VTR, camcorder or Hi-Fi sound system).

Advance Recording Feature continued

This function allows you to start a new recording at a specific position on the cassette while maintaining a very smooth scene change.

Using the Assemble Edit Function

Note:
- A smooth edited scene will only be achieved if there are of the same video system.
- Some noise can be expected at the end of the edit recording before the original recording resume.

1 Insert the cassette to be edited in your VTR.

2 Press the PLAY (▶) button to start playback.

3 When you reach the position from which you wish to start the new recording , press the PAUSE/STILL (⏸) button.

4 Press the F.ADV button as often as necessary to advance frame by frame, until the exact recording position is located.

5 While the VTR is in still mode, press the two REC buttons to activate the assemble Edit function.

6 Select the source from which you wish to record by pressing:
- The CH (▲ or ▼) buttons for television channels.
- The I.SELECT button for the AV1, AV2 or AUX input sources.

7 Press the PAUSE/STILL (⏸) button to start recording.

8 When you have finished recording, press STOP (■).

Recording from Another VTR or Camcorder

You can copy a cassette to your VTR from another video source, such as another VTR or a camcorder.

Note : It is an infringement of copyright laws to copy prerecorded cassettes or to re-record them any from without the permission of the owners of the corresponding copyright.

1 Connect the VTR, from which the cassette is to be copied, to the appropriate SCART audio and video input connectors on the rear of your VTR.

2 Insert a blank cassette in your VTR.

3 Insert the pre-recorded cassette in the other video source (VTR or camcorder).

4 Press the I.SELECT button to select the appropriate input on your VTR :
- AV1 or AV2 for the SCART input.
- AUX for the RCA input (V-752UK/V-652UK/V-642UK/V-252UK/V-242UK).

5 Start playing back the cassette to be copied.

6 Press the two REC buttons to start recording on your VTR.

7 When you have finished recording, press STOP (■) on both VTRs.

Advance Recording Feature continued

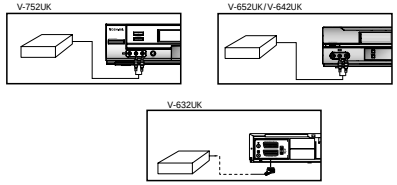
With the Audio Dubbing function, you erase the previously recorded sound and replace it with a new soundtrack from :

- Another suitable equipment

Audio Dubbing a Pre-recorded Cassette (V-752UK/V-652UK/V-642UK/V-632UK only)

Restriction :
Audio dubbing is applicable only to the longitudinal audio track (normal audio).

1 Connect suitable equipment e.g. cassette recorder to the AUX (for V-752UK/V-652UK/V-642UK) in front of the VTR and AV1 (for V-632UK) on the rear of the VTR.



2 Insert the tape to be OVER-DUBBED (the tape with the new audio track to be recorder onto).

3 Find the scene that you want to over-dub and press PAUSE/STILL on the remote control.

4 Press the A.DUB (audio dub) button on the remote control. (The screen may flicker, this is normal).

5 Press the PAUSE/STILL button again to start both the playback and the Audio dub record.

6 Play the sound from the external equipment.

7 When listening to the tape, use the AUDIO button to select the required option.

See page 48 for the selection soundtracks.

Advance Recording Feature continued

VPS/PDC Default

Note : VPS is the system used in mainland Europe and PDC is used in UK.

Programme VPS/PDC is a system of telling the VTR when a programme actually starts. Typically, when you want to record a programme you will tell the VTR to start recording, probably, five minutes before the advertised starting time of the programme and to finish ten minutes or so after the programme is due to finish. So even if the programme starts early or finishes late you will normally still get to see what you wanted to record. However when live programmes over-run or the day's television schedule is changed from that advertised, you may miss the desired programme which may have been delayed or even cancelled. With VPS/PDC the VTR will wait until the signal is sent to confirm the programme is starting and the VTR will record the programme even if it is two or more, hours late.

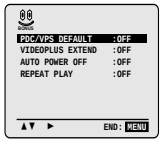
1 Press MENU on the remote control.
Result : The programming menu is displayed.

2 Press the corresponding ▲, ▼ or ◄, ► buttons to select the **EASY OPERATION** option.

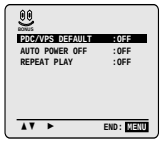
3 Press OK button to select this option.
Result : The **EASY OPERATION** menu is displayed.

4 Press the corresponding ▲ or ▼ buttons until the **PDC/VPS DEFAULT** option is selected.

V-752UK/V-652UK/V-252UK



V-642UK/V-632UK/ V-242UK/V-232UK



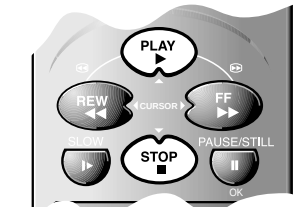
5 Press ► button to select **ON** in **PDC/VPS DEFAULT** option.

6 On completion, press MENU twice to exit the menu.

Playing back

This function allows you to play back any pre-recorded cassette.

Playing a Cassette



(V-652UK/V-642UKV-632UK/ V-252UK/V-242UK/V-232UK)

(V-752UK)

1 Switch on both the television and your VTR.

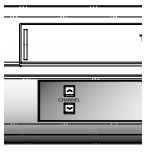
2 Insert the video cassette to be played. If the safety tab on the cassette is intact, press PLAY (▶).
Otherwise, the cassette is played automatically.
Note : When a cassette is loaded. the tape position is optimized automatically to reduce disturbance (Digital Auto Tracking). When playing a cassette, if the end of the tape is reached, the cassette is rewound automatically. NTSC tapes can be played back but cannot be recorded with this VTR.

3

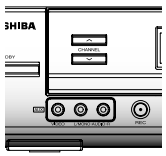
To..	Then pres...
Stop the playback	■ (STOP).
Eject the cassette	⏏ (EJECT).

Adjusting Picture Alignment Manually

(V-652UK/V-642UKV-632UK/ V-252UK/V-242UK/V-232UK)



(V-752UK)



The Picture Alignment feature allows you to adjust the alignment manually to obtain the best possible picture.

When noise bars or streaks appear during playback, adjust alignment manually by pressing the TRK (⌃ or ⌄) buttons until the picture is clear and stable.
Result : The tracking bar appears.
The image is adjusted.
The tracking bar disappears when you release the button.

As each VTR is different, slight adjustments need to be made in the way the tape is read. This is called 'Tracking'. When playback starts the video recorder automatically adjusts the Tracking to obtain the best possible picture and sound; Digital Auto Tracking. The "AUTO" indicator will flash while this adjustment takes place and the playback picture and sound may be distorted. The VTR will automatically adjust the Tracking as best it can. If you playback rented tapes or tapes recorded on other machines, you may occasionally find that the Digital Auto Tracking is not able to improve the picture sufficiently. In these instances you will need to adjust the Tracking manually.

With a tape in and playing, hold down either the TRK (⌃ or ⌄) button on the remote control until the best possible picture and sound is obtained

If the tape is old or worm, it may be impossible to improve the picture performance. if you press the PAUSE/STILL button the image may shimmer. This can also be reduced by adjusting the Tracking.

Playing back continued

The picture control feature allows you to adjust the sharpness of the image manually, according to your own preferences.

Picture Control

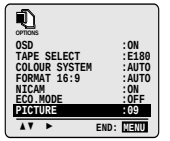
1 During playback, press the MENU button on the remote control.
Result : The MAIN menu is displayed.

2 Press the corresponding ▲, ▼ or ◄, ► buttons to select the **USER SET** option.

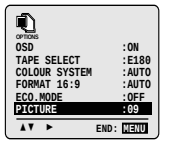
3 Press OK button to select this option.
Result : The **USER SET** menu is displayed.

4 Press the corresponding ▲ or ▼ buttons until the **PICTURE** option is selected.

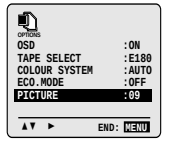
V-752UK/V-652UK/ V-642UK/V-632UK



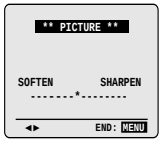
V-252UK



V-242UK/V-232UK



5 Press ◄ or► button, until the picture is displayed according to your preference.



Note : The Picture control feature allows you to adjust the sharpness of the image manually by pressing PICTURE button on the Remore Control.

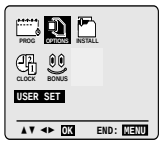
Playing back continued

Your VTR can automatically read a 16:9 signal from the AV2 input or a prerecorded 16:9 tape. It can broadcast a 16:9 signal through a 21 pin scart cable.

Format 16:9 (Wide Screen) (V-752UK/V-652UK/V-642UK/V-632UK/V-252UK only)

1 Press MENU on the remote control.
Result : The programming menu is displayed.

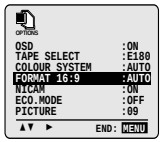
2 Press the corresponding ▲, ▼ or ◄, ► buttons to select the **USER SET** option.



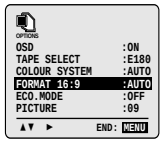
3 Press OK button to select this option.
Result : The **USER SET** menu is displayed.

4 Press the corresponding ▲ or ▼ buttons until the **FORMAT 16:9** option is selected.

V-752UK/V-652UK
V-642UK/V-632UK



V-252UK



5 Press ► button to select **AUTO** → **ON** → **OFF**.

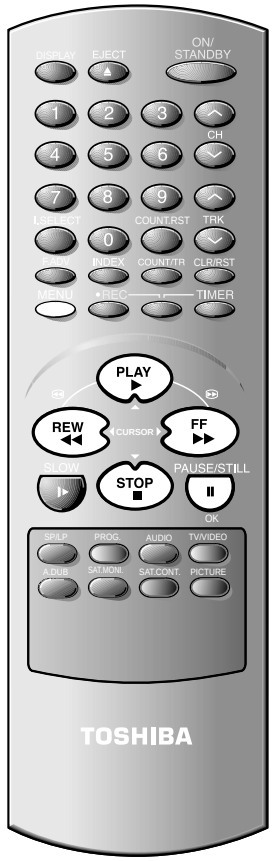
AUTO	Set when you used a wide TV. The VTR detects wide TV Programmes and normal TV programmes Automatically when playing back and recording.
ON	The VTR always plays back and records in the mode compatible with 16:9 wide screen. Set if the VTR cannot detect wide TV programmes with "AUTO" set.
OFF	Set if you do not use a wide TV.

6 On completion, press MENU twice to exit the menu.

Selecting the Colour Mode

Before recording or playing back a cassette, you can select the required system standard. Otherwise, the system automatically select the reception standard when you select AUTO.

Selecting the Colour Mode



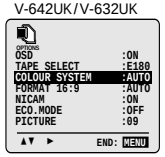
1 Press MENU on the remote control.
Result : The programming menu is displayed.

2 Press the corresponding ▲, ▼ or ◄, ► buttons to select the **USER SET** option.

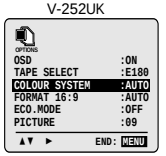
3 Press OK button to select this option.
Result : The **USER SET** menu is displayed.

4 Press the corresponding ▲ or ▼ buttons until the **COLOUR SYSTEM** option is selected.

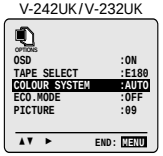
V-752UK/V-652UK
V-642UK/V-632UK



V-252UK



V-242UK/V-232UK



5 Press ► button to select **AUTO** → **PAL** → **B/W**

AUTO	When playing back a cassette, the system standard is automatically selected by the VTR.
B/W	Black and White

6 On completion, press MENU twice to exit the menu.

Note:
- ♦ When playing back a cassette, the standard is automatically selected by the VTR.
  (Even though you already selected a manual system)
- ♦ When you playback an NTSC-recorded tape on this VTR make a setting on the colour system according to your TV. If your TV is a PAL system only TV, set NTPB. If your TV is Multi system TV (NTSC 4.43 compatible), set NT 4.43 and you can record NT 4.43.

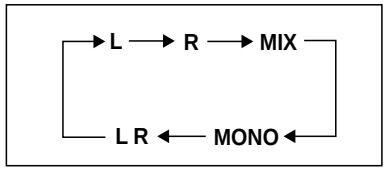
Selecting the Audio Output Mode

(V-752UK / V-652UK / V-642UK / V-632UK only)

You can select the mode in which the sound is reproduced on the loudspeakers and AV outputs. The following options are available.

Selecting the Audio Output Mode

When monitoring a TV programme or playing back a Hi-Fi recorded video tape, press the AUDIO button to select a desired sound output. As the AUDIO button is pressed, the sound output and the indicator change as below :



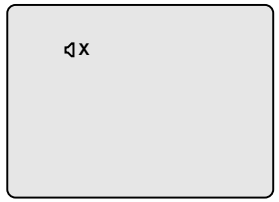
Option	Description
L	Used to listen to the sound on the left Hi-Fi channel
R	Used to listen to the sound on the right Hi-Fi channel
MIX	Used to listen to the mixed sound of the Hi-Fi and normal channels.
MONO	Used to listen to the sound on the normal mono channel.
LR	Used to listen to Hi-Fi stereo sound on the left and right channels. Note : When playing back tapes recorded in Hi-Fi, the sound switches to Hi-Fi after five seconds of Mono.

Selecting the Audio Output Mode

(V-252UK / V-242UK / V-232UK only)

You can select the mode in which the sound is mute.

Selecting the Audio Mute Mode



To select the audio mute mode on and off simply press AUDIO button on the remote control.

Searching for a Sequence

You can play a cassette in slow motion.
Note : No sound is heard when playing back a cassette in slow motion

Playing a Cassette in Slow Motion

1 Press :
- PLAY (▶) to start playing the cassette
- SLOW (▮▶) and release the SLOW (▮▶) button on the remote control. If you press the SLOW (▮▶) button twice, the playback will SLOW down to 1/12 th of normal speed.
- To return to the normal speed, press PLAY (▶) button.

2 When playing back in slow motion, picture interference may occur. Press the TRK (▲ or ▼) button to minimize this effect.

Note : When you have been using the Slow Motion function for more than about five minutes, the VTR will automatically play to protect the :
- Cassette
- Video head

Playing a Sequence Frame by Frame

You can :
- Stop the cassette at a given frame (image)
- Advance one frame at a time

Note : No sound is heard when playing back frame by frame

1 Press :
- PLAY (▶) to start playing the cassette
- PAUSE/STILL (❚❚) to stop the tape at given frame
- F.ADV to advance frame by frame

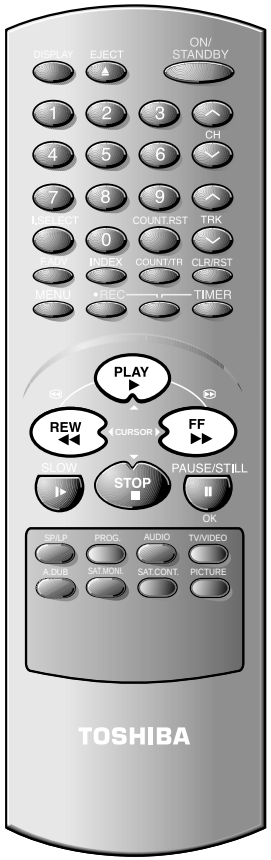
2 To return to normal, press PAUSE/STILL (❚❚).

Note : When you have been using the Frame-by-Frame function for more than about five minutes, the VTR will automatically play to protect the Cassette and Video heads.

Picture Search, Fast Forward / Rewind

Picture Search enables you to Fast Forward or Rewind and look for a particular part of a tape.

Picture Search, Fast Forward/Rewind



1 Press PLAY, the VTR will enter normal play mode. While in play press and release the FF (or REW) button. The VTR will search at 5 times the normal playback speed.

2 To return to normal playback mode, press the PLAY (▶) button.

3 If you press and HOLD down the FF (or REW) button the VTR will search at 9 times the normal speed. Releasing the FF (▶▶) button will return the VTR to search at 5 times the normal speed. To return to normal playback mode, press the PLAY (▶) button.

4 Whilst in Picture Search mode, if you press the FF (▶▶) button again, the VTR will enter normal Fast-Forward mode.

5 Likewise, while in Picture Search REW mode, if you press the REW (◀◀) button again, the VTR will enter normal Rewind mode.

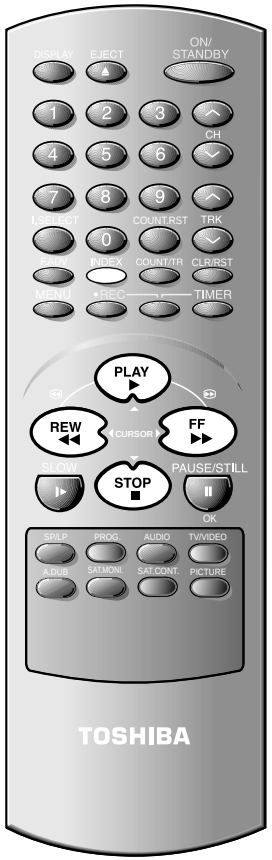
6 If, when Rewinding (REW) or Fast Forwarding (FF), you press the REW (or FF) button, the VTR will enter the Picture Search mode.

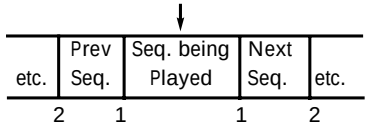
Note : When the tape counter is displayed on the screen, pressing REW (◀◀) or FF (▶▶) will return to zero counter position instead of beginning or end of the tape.

Searching for a Specific Sequence

Each time you record a cassette on this VTR, an "index" is automatically marked on the tape when recording starts.
The Search function allows you to fast-forward or rewind to a specific index and start playback from that point. Depending on the direction selected, the indexes are numbered as follows:

Searching for a Specific Sequence





INTRO SCAN

1 To search for a specific index, press INDEX.

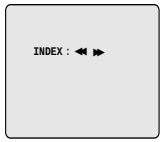
2 Press the REW (◀◀) or FF (▶▶) buttons depending on the direction where your desired programme is located.

3 When an index mark is found the VTR will playback the tape for 5 seconds, after which it will continue searching for the next Index mark.

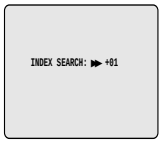
4 If you want to watch the tape from a particular Index, simply press PLAY.

Index Skip Search :
This feature will enable you to fast forward / rewind to a specific point on a tape : E.g. If you have recorded 3 different programmes on a tape and you have rewound the tape to the beginning, by using this feature you can go directly to the start of programme 2 simply by pressing the INDEX button.

1 Press the INDEX to start the Index search.



2 Press the REW (◀◀) or FF (▶▶) buttons twice more, This will take you directly to the desired programme is located.



3 These Index searches can be made forwards: (press ▶▶) or backwards: (press ◀◀).

4 To cancel an Index search simply press the PLAY or STOP button.

Auto Repeat Play

You can set repeat play to repeat the tape continuosly from beginning to end.

Auto Repeat Play

1 Press MENU on the remote control.
Result : The programming menu is displayed.

2 Press the corresponding ▲, ▼ or ◀, ▶ buttons to select the **EASY OPERATION** option.

3 Press the OK button to select this option.
Result : The **EASY OPERATION** menu is displayed.

4 Press the corresponding ▲ or ▼ buttons, until the **REPEAT PLAY** option is selected.

V-642UK/V-632UK/ V-752UK/V-652UK/V-252UK

V-242UK/V-232UK

5

To...	Press ◀ or ▶ , until...
Repeat play	**ON** is displayed
Do not wish to repeat play	**OFF** is displayed

6 On completion, press MENU twice to exit the menu.

Other Function and Useful Recommendations

The Auto Power Off feature automatically turn off your VTR if no signal is received and you do not press any button for the selected time.

Auto Power Off

1 Press MENU on the remote control.
Result : The programming menu is displayed.

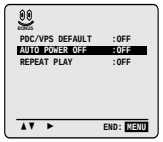
2 Press the corresponding ▲, ▼ or ◄, ► buttons to select the **EASY OPERATION** option.

3 Press the OK button to select this option.
Result : The **EASY OPERATION** menu is displayed.

4 Press the corresponding ▲ or ▼ buttons, until the **AUTO POWER OFF** option is selected.

V-752UK/V-652UK/V-252UK

V-642UK/V-632UK/
V-242UK/V-232UK



5 Press the ► button, until you select the time of Auto Power Off interval.

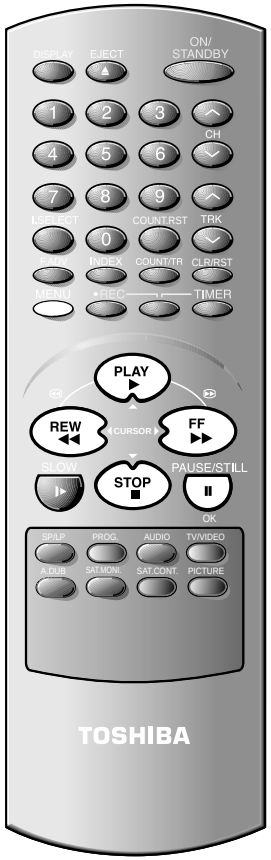
OFF → 2HOUR → 3HOUR

6 On completion, press MENU twice to exit the menu.

Other Function and Useful Recommendations continued

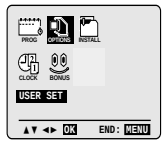
Low Power Mode reduces the Standby power consumption of the VTR when in Standby mode.
Useful, for example, when you are away from the house on holiday. It saves actually turning the VTR off.

ECO Mode-Reducing Standby power consumption



1 Press MENU on the remote control.
Result : The programming menu is displayed.

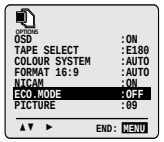
2 Press the corresponding ▲, ▼ or ◄, ► buttons to select the **USER SET** option.



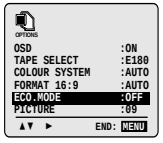
3 Press the OK button to select this option.
Result : The **USER SET** menu is displayed.

4 Press the corresponding ▲ or ▼ buttons, until the **ECO. MODE** is selected.

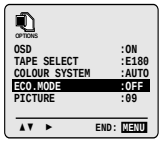
V-752UK/V-652UK
V-642UK/V-632UK



V-252UK



V-242UK/V-232UK



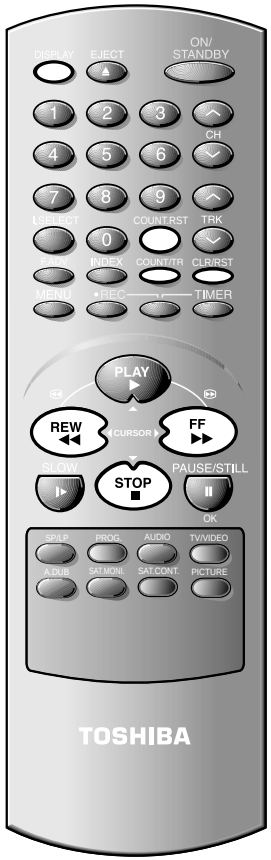
5 Press the ► button to turn LOW (3Watts) mode on. Now, when the VTR is in standby mode the front display panel will shut off. Even the clock disappears. By pressing the ON/STANDBY button again the display panel will reappear.

6 On completion, press MENU twice to exit the menu.

Using the tape Counter

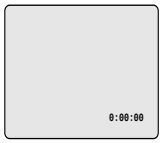
The tape counter :
- Indicates the elapsed time in the play and record modes (hours, minutes and seconds)
- Is reset when a cassette is inserted in the VTR
- Allows you to find the beginning of a sequence easily.

Using the Tape Counter



1 Insert a cassette in your VTR.

2 To set the tape counter to zero at the beginning of a sequence:
- Press DISPLAY twice to display the counter
- Press CLR/RST when you want to set the tape counter to zero



3 When you are ready,
- Start playback or Recording
- Press the STOP button.
- To fast-forward or rewind to the sequence at which the counter was set to zero, press REW (◀◀) or FF (▶▶).

Note:
When the tape counter is not displayed on the screen, pressing REW (◀◀) or FF (▶▶) will not return to zero counter position but to the beginning or end of the tape.
Some VTR information, such as the counter, can be displayed on the television screen (unless you have deactivated the OSD mode; refer to page 16).
Press DISPLAY :
- Once to display the current function, programme number, recording speed, date, time and counter
- Twice to display the counter only
- Three times to display the time remaining on the cassette
- Four times to clear the display.

Some VTR information, such as the time, counter and time remaining can be displayed on the front display panel.
Each time you press COUNT/TR, the VTR display changes in sequence as follows:

Tape counter → Tape remaining time (r) → Clock → Tape counter

TV Frequency table (System-I)

TV Frequency Table

001 ~ 010, 013 : CCIR STD VHF
021 ~ 069 : CCIR STD UHF
071 ~ 086 : CCIR STD , CATV
101 ~ 141 : CCIR CATV
201 ~ 253 : IRELAND CATV

U.K
IRELAND

DISP	CH	Band	Fp	Fosc	STD
001	A	V-L	45.75	84.65	IRE
002	B	V-L	53.75	92.25	IRE
003	C	V-L	61.75	100.65	IRE
004	D	V-H	175.25	214.15	IRE
005	E	V-H	183.25	222.15	IRE
006	F	V-H	191.25	230.15	IRE
007	G	V-H	199.25	238.15	IRE
008	H	V-H	207.25	246.15	IRE
009	J	V-H	215.25	254.15	IRE
010		V-H	223.25	262.15	IRE
013		V-H	247.25	286.33	IRE
021	E21	UHF	471.25	510.15	U.K
022	E22	UHF	479.25	518.15	U.K
023	E23	UHF	487.25	526.15	U.K
024	E24	UHF	495.25	534.15	U.K
025	E25	UHF	503.25	542.15	U.K
026	E26	UHF	511.25	550.15	U.K
027	E27	UHF	519.25	558.15	U.K
028	E28	UHF	527.25	566.15	U.K
029	E29	UHF	535.25	574.15	U.K
030	E30	UHF	543.25	582.15	U.K
031	E31	UHF	551.25	590.15	U.K
032	E32	UHF	559.25	598.15	U.K
033	E33	UHF	567.25	606.15	U.K
034	E34	UHF	575.25	614.15	U.K
035	E35	UHF	583.25	622.15	U.K
036	E36	UHF	591.25	630.15	U.K
037	E37	UHF	599.25	638.15	U.K
038	E38	UHF	607.25	646.15	U.K
039	E39	UHF	615.25	654.15	U.K
040	E40	UHF	623.25	662.15	U.K
041	E41	UHF	631.25	670.15	U.K
042	E42	UHF	639.25	678.15	U.K
043	E43	UHF	647.25	686.15	U.K
044	E44	UHF	655.25	694.15	U.K
045	E45	UHF	663.25	702.15	U.K
046	E46	UHF	671.25	710.15	U.K
047	E47	UHF	679.25	718.15	U.K
048	E48	UHF	687.25	726.15	U.K
049	E49	UHF	695.25	734.15	U.K
050	E50	UHF	703.25	742.15	U.K
051	E51	UHF	711.25	750.15	U.K
052	E52	UHF	719.25	758.15	U.K
053	E53	UHF	727.25	766.15	U.K
054	E54	UHF	735.25	774.15	U.K
055	E55	UHF	743.25	782.15	U.K
056	E56	UHF	751.25	790.15	U.K
057	E57	UHF	759.25	798.15	U.K
058	E58	UHF	767.25	806.15	U.K
059	E59	UHF	775.25	814.15	U.K
060	E60	UHF	783.25	822.15	U.K
061	E61	UHF	791.25	830.15	U.K
062	E62	UHF	799.25	838.15	U.K
063	E63	UHF	807.25	846.15	U.K
064	E64	UHF	815.25	854.15	U.K
065	E65	UHF	823.25	862.15	U.K
066	E66	UHF	831.25	870.15	U.K
067	E67	UHF	839.25	878.15	U.K
068	E68	UHF	847.25	886.15	U.K
069	E69	UHF	855.25	894.15	U.K
071	X	V-L	69.25	108.15	CCIR
072	Y	V-L	76.25	115.15	CCIR
073	Z	V-L	83.25	122.15	CCIR
074	Z+1	V-L	90.25	129.15	CCIR
075	Z+2	V-L	97.25	136.15	CCIR
076	E02	V-L	48.25	87.15	CCIR
077	E03	V-L	55.25	94.15	CCIR
078	E04	V-L	62.25	101.15	CCIR
079	E05	V-H	175.3	214.15	CCIR
080	E06	V-H	182.3	221.15	CCIR
081	E07	V-H	189.3	228.15	CCIR
082	E08	V-H	196.3	235.15	CCIR
083	E09	V-H	203.3	242.15	CCIR
084	E10	V-H	210.3	249.15	CCIR
085	E11	V-H	217.3	256.15	CCIR
086	E12	V-H	224.3	263.15	CCIR
101	S01	V-L	105.25	144.15	CCIR
102	S02	V-L	112.25	151.15	CCIR
103	S03	V-L	119.25	158.15	CCIR
104	S04	V-L	126.25	165.15	CCIR
105	S05	V-L	133.25	172.15	CCIR
106	S06	V-L	140.25	179.15	CCIR
107	S07	V-H	147.25	186.15	CCIR
108	S08	V-H	154.25	193.15	CCIR
109	S09	V-H	161.25	200.15	CCIR
110	S10	V-H	168.25	207.15	CCIR
111	S11	V-H	231.25	270.15	CCIR
112	S12	V-H	238.25	277.15	CCIR
113	S13	V-H	245.25	284.15	CCIR
114	S14	V-H	252.25	291.15	CCIR
115	S15	V-H	259.25	298.15	CCIR
116	S16	V-H	266.25	305.15	CCIR
117	S17	V-H	273.25	312.15	CCIR
118	S18	V-H	280.25	319.15	CCIR
119	S19	V-H	287.25	326.15	CCIR
120	S20	V-H	294.25	333.15	CCIR
121	S21	V-H	303.25	342.15	CCIR
122	S22	V-H	311.25	350.15	CCIR
123	S23	V-H	319.25	358.15	CCIR
124	S24	V-H	327.25	366.15	CCIR
125	S25	V-H	335.25	374.15	CCIR
126	S26	V-H	343.25	382.15	CCIR
127	S27	V-H	351.25	390.15	CCIR
128	S28	V-H	359.25	398.15	CCIR
129	S29	V-H	367.25	406.15	CCIR
130	S30	V-H	375.25	414.15	CCIR
131	S31	V-H	383.25	422.15	CCIR
132	S32	V-H	391.25	430.15	CCIR
133	S33	V-H	399.25	438.15	CCIR
134	S34	V-H	407.25	446.15	CCIR
135	S35	V-H	415.25	454.15	CCIR
136	S36	V-H	423.25	462.15	CCIR
137	S37	UHF	431.25	470.15	CCIR
138	S38	UHF	439.25	478.15	CCIR
139	S39	UHF	447.25	486.15	CCIR
140	S40	UHF	455.25	494.15	CCIR
141	S41	UHF	463.25	502.15	CCIR
201		V-L	48.00	86.9	IRE-CA
202		V-L	56.00	94.9	IRE-CA
203		V-L	64.00	102.9	IRE-CA
204		V-L	72.00	110.9	IRE-CA
205		V-L	80.00	118.9	IRE-CA
206		V-L	88.00	126.9	IRE-CA
207		V-L	96.00	134.9	IRE-CA
208		V-L	104.00	142.9	IRE-CA
209		V-L	112.00	150.9	IRE-CA
210		V-L	120.00	158.9	IRE-CA
211		V-L	128.00	166.9	IRE-CA
212		V-L	136.00	174.9	IRE-CA
213		V-L	144.00	182.9	IRE-CA
214		V-H	152.00	190.9	IRE-CA
215		V-H	160.00	198.9	IRE-CA
216		V-H	168.00	206.9	IRE-CA
217		V-H	176.00	214.9	IRE-CA
218		V-H	184.00	222.9	IRE-CA
219		V-H	192.00	230.9	IRE-CA
220		V-H	200.00	238.9	IRE-CA
221		V-H	208.00	246.9	IRE-CA
222		V-H	216.00	254.9	IRE-CA
223		V-H	224.00	262.9	IRE-CA
224		V-H	232.00	270.9	IRE-CA
225		V-H	240.00	278.9	IRE-CA
226		V-H	248.00	286.9	IRE-CA
227		V-H	256.00	294.9	IRE-CA
228		V-H	264.00	302.9	IRE-CA
229		V-H	272.00	310.9	IRE-CA
230		V-H	280.00	318.9	IRE-CA
231		V-H	288.00	326.9	IRE-CA
232		V-H	296.00	334.9	IRE-CA
233		V-H	304.00	342.9	IRE-CA
234		V-H	312.00	350.9	IRE-CA
235		V-H	320.00	358.9	IRE-CA
236		V-H	328.00	366.9	IRE-CA
237		V-H	336.00	374.9	IRE-CA
238		V-H	344.00	382.9	IRE-CA
239		V-H	352.00	390.9	IRE-CA
240		V-H	360.00	398.9	IRE-CA
241		V-H	368.00	406.9	IRE-CA
242		V-H	376.00	414.9	IRE-CA
243		V-H	384.00	422.9	IRE-CA
244		V-H	392.00	430.9	IRE-CA
245		V-H	400.00	438.9	IRE-CA
246		V-H	408.00	446.9	IRE-CA
247		V-H	416.00	454.9	IRE-CA
248		V-H	424.00	462.9	IRE-CA
249		UHF	432.00	470.9	IRE-CA
250		UHF	440.00	478.9	IRE-CA
251		UHF	448.00	486.9	IRE-CA
252		UHF	456.00	494.9	IRE-CA
253		UHF	464.00	502.9	IRE-CA